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TSSG/ESD-72/69
2 October 1969

MEMORANDUM FOR: Chief, Research & Engineering Division, TSSG

SUBJECT: Test Plan for the [redacted] Twin Stage On-Line P.I. Comparator 25X1

1. The attached Test Plan is forwarded for your information and planning purposes.

2. Your comments on this test plan will be welcomed.

[redacted] 25X1

Chief
Engineering Support Division, TSSG

Attachment:
Test Plan

Distribution:
Orig. - Addressee
1 - NPIC/TSSG/PPS (through Ch/TSSG)
1 - NPIC/TSSG/RED [redacted] 25X1
1 - NPIC/TSSG/ESD/EPB
1 - NPIC/TSSG/ESD
1 - NPIC/IEG [redacted] 25X1
2 - NPIC/TSSG/ESD/TEB
1 - NPIC/PSG/AID/AMB [redacted] 25X1
1 - DDI/IAS [redacted] 25X1
1 - DIAAP-9
1 - Army/SPA

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TEST PLAN

[redacted] TWIN-STAGE ON-LINE P.I. COMPARATOR (TSC) 25X1

1. INTRODUCTION

The TSC is intended to be a P.I. measuring device. It views and measures in stereo. There is capability for motion while retaining the stereo fusion, if only scale differences are present. The stereo measuring capability is achieved by transmitting the X & Y coordinates of both left and right stages to the on-line computer. The optical system is a modified [redacted] Stereo Comparator Head. The film illumination system provides background illumination over the entire 6 X 6 format on each side with high-intensity sources under each objective lens. 25X1

The TSC is scheduled for delivery to NPIC on or about 27 October 1969.

2. PRE-ACCEPTANCE TESTING

On 14 October 1969, representatives from RED & TEB will visit the contractor's facility. The purpose of this visit is to check all items required in the contract and specification prior to shipment. The major deletion will, of necessity, be on-line operation. Any discrepancies noted will be corrected prior to shipment.

3. ACCEPTANCE TESTING

Acceptance testing will be performed by ESD/TEB. The TSC Specification #02228 will be used.

All requirements in the specification will be checked in a go-no go fashion. All failures will be reported to TSSG/RED for action. This includes an on-line test using the 494 computer. The manuals and drawings will be reviewed for acceptability.

This testing should be completed by 7 November. A Memorandum Test Report will be prepared at the end of Acceptance Testing.

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4. ENGINEERING & PERFORMANCE TESTING

After the TSC has been accepted, engineering and performance tests will start. As in acceptance testing, all requirements in the Specification will be tested. However, the data will not be go-no go, but will explore the capabilities of the unit in depth.

In addition, such factors as usability, reliability, maintainability and safety will be thoroughly checked.

This testing should be completed by 19 December 1969.

5. OPERATIONAL SUITABILITY TESTING

The TSC is scheduled to be delivered to IAS after completion of the ESD/TEB effort. It will be requested that the operator's comments, or a summary of them, be forwarded to TEB after 4 weeks of operation by IAS personnel.

6. TEST & EVALUATION REPORT

Upon completion of the testing program described herein an overall report will be produced. This report will contain details of all testing performed and will contain conclusions and recommendations by TEB and IAS, if any. It is planned to distribute this report to all operating components within NPIC, to EXRAND members, and to other qualified components upon request.

7. ASSISTANCE REQUIRED

Applied Mathematics Branch/AID/PSG will be requested to program the ESD computer terminals to accept the 48-word format used by the TSC and to echo the input message for purposes of on-line test.

25X1

TEST ENGINEER

25X1

Chief, Test & Eval. Branch,
ESD/TSSG